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ABSTRACT

Although formal vocational training in technical high schools or community-based job placements provides opportunities for adolescents with disabilities, educators need to consider a broader continuum of vocational training options for these students. Entrepreneurial options such as school-based businesses, internships, and apprenticeships may serve to remedy many of the educational, personal, and rural issues that can contribute to poor vocational preparation, a loss of autonomy, and reduced independence for disabled students. Formal entrepreneurial programs strengthen the ties between schools and community businesses, maximize use of limited community resources, and in the long run, improve students' sense of self-efficacy and personal control in their lives. However, these programs require a significant amount of skill and commitment on the part of special educators and school administrators. Two tables summarize the career education competencies students should acquire at elementary and junior high levels as a basis for entrepreneurial training during adolescence. Educational objectives and desirable economic and job-related knowledge and skills are listed for the domains of the individual, family, community, town, region, and nation at the elementary level, and for the domains of personal, business, and global economics at the junior high level. A third table summarizes objectives and skills of the entrepreneurial curriculum suggested for adolescents with disabilities. Contains 12 references. (TD)

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THE ENTREPRENEURIAL CURRICULUM: RURAL SCHOOL-COMMUNITY PROCESS FOR VOCATIONAL TRAINING OF ADOLESCENTS WITH DISABILITIES

Introduction

Within the last decade, several studies have found that vocational training opportunities for adolescents with disabilities are inadequate. For example, Divers-Stamnes (1995) reported that the lack of apprenticeships or community-based training programs for students who may not obtain post-secondary training restricts vocational options to those few available jobs requiring minimal training or experience. Further, a report entitled What Work Requires of Schools: A SCANS Report for America 2000 (U.S. Department of Labor, 1991) suggest that the acquisition of competencies, skills, and personal qualities required for successful employment by adolescents with disabilities has not been developed in real work environments. Among the reasons cited by Brolin (1996) for the poor development of work skills among adolescents with disabilities at an **educational level** are:

- a pervasive "underestimation" of the vocational potential of children and adolescents with disabilities;
- lower levels of commitment to individuals with disabilities by state and federal governmental agencies;
- a lack of well-designed research studies on the accomplishments of persons with disabilities;
- a scarcity of appropriate training strategies and occupational exploration opportunities.

Bandura (1997) also notes several factors which impede work adjustment and the opportunity for personally meaningful work among adolescents with disabilities. Among factors cited at a **personal level** are:

- The lack of functional links between the school and the workplace;
- A "disconnect" between academic performance and career training opportunities in which poor performers are set adrift with limited educational competencies and a lack of work skills;
- Disbelief on the part of students that they have the ability to acquire the skills necessary for mastery of requisite academic or work-related skills;
- Negative workplace climates stemming from weak supervisory skills.
- Low sense of self-efficacy among adolescents regarding the ability to secure employment in a quality job.

In addition to the educational and personal variables impacting career training opportunities for adolescents with disabilities, there are several significant rural characteristics which may inhibit the development of strong vocational training programs. Among those **rural factors** cited in the literature are:

- Limited financial resources inherent in rural schools and communities (Carlson, 1993);
- Long-term poverty (Stern, 1992) which according to Bandura (1997) does "breed a low sense of occupational efficacy regardless of the prestige level of the vocation" (p. 188).
- Long-term economic decline (Carlson, 1992);
- Distance and other geographic barriers (Helge, 1992);
- A limited availability of technical and human resources (Helge).

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Despite these problematic barriers, the sense of community which exists in rural locations has been cited as the single, critical element leading to quality educational experiences for rural students with disabilities. However, both the strengths and weaknesses of rural communities as well as the personal factors inherent in many adolescents must be factored into the development of effective career and vocational training strategies.

The Entrepreneurial Curriculum

Webster defines an entrepreneur as an individual who organizes a business undertaking for profit. Because the term in our culture may be associated with entrepreneurs like Henry Ford or more currently, Bill Gates, who have acquired great wealth due to special knowledge or skill, and because of the persistent perception that people with disabilities are incompetent; the notion that adolescents with disabilities could acquire entrepreneurial skills may seem incomprehensible to many. Brolin (1996) notes that people with disabilities experience a *generalized underestimation* of vocational potential from educators, parents, employers and the general public. Yet Bandura (1997) reports that guided mastery programs, rehearsal, problem-solving strategies, and psychological support lead to adaptation, higher generic skills, resiliency, and improved self-efficacy among adolescents. The entrepreneurial curriculum contains these elements and offers greater vocational choice and potential independence to students with disabilities.

It is also likely that better vocational training programs with improved training techniques, and the opportunity for occupational exploration may be achieved through the implementation of an entrepreneurial curriculum. Further, this curriculum may maximize the use of scarce rural community resources and improve the links between the educational and business communities in rural areas. It is for these reasons that an entrepreneurial curriculum for students with disabilities is under development.

Generally, there are three phases of vocational preparation; general education, career education, and specific vocational programming. Both general and career education should begin when children enter school, and specific vocational education (entrepreneurial skills) should begin in early adolescence. The following tables summarize the career education competencies students should acquire at elementary and junior high levels as a basis for entrepreneurial training during adolescence. These competencies have been adapted for use in special education programs from the national entrepreneurial curriculum funded and developed by Junior Achievement (1997). The first table outlines the elementary (K-6) curriculum while the second table outlines the junior high curriculum for career education competencies.

Domain	Objectives	Skills and Terms
The Individual	•States role in a variety of activities. •Identifies economic activities. •Defines interdependence. •States benefits of saving money. •Defines role of consumers.	•Active listening •Defines individual, work, needs/wants, buy, sell, choice, saving, bank, consumer, earnings, exchange. •Demonstrates a decision-making process. •Reads and contructs graphs.
The Family	•Defines a family. •Describes interdependence in family work and life. •Discriminates between need and want. •Matches term and symbol on maps. •Locates business and service on map. •Matches family needs and wants with a	•Defines family, work, need, want, incentive, scarcity, job, employment, tools, skills. •Active listening •Analyzes information •Demonstrates a decision-making process. •Uses symbols to gather information. •Follows directions.

Domain	Objectives	Skills and Terms
	variety of businesses. •Defines tools and skills. •Lists skills required in specific jobs.	
The Community	•Identifies community jobs. •Describes interdependence among people in living and work environments. •Describes range of job opportunities in a community. •States similarities and differences in unit and assembly line method. •States benefits of good decision-making. •Offers examples of the exchange of money for goods and services. •Describes the flow of money in a community.	•Defines business, unit produc, assembly-line production, resources, teamwork, taxes, services, choice, opportunity cost, goods. •Makes formal observations. •Applies a problem-solving method
The Town	•Defines city, town. •State benefits of planning for economic development. •Identifies jobs within the construction, bank, newspaper and restaurant businesses. •Describes the elements of a newspaper as a communication tool. •States skills required for specific jobs. •States role of bank and completes simple bank transactions. •Describes the interrelationship between producers and consumers.	•Defines town, zones, industry, job, owner, consumer, producer, local economy. •Interprets simple blueprint. •Completes a deposit slip, check, withdrawal slip.
The Region	•Identifies things of value, resources. •Classifies natural, human, technical resources. •Generates list of local resources. •States businesses using the 3 resources. •Describes differences between a good & service •Discriminates between income and expense and tracks the two. •Solves a business problem to maximize profit.	•Defines economy, region, types of resources, products, goods, services, profit. •Conducts research on a business. •Solves a simple business problem. •Interprets data from a business. •Computes business income and expense.
The Nation	•Identifies a partnership, corporation, sole proprietorship. •Lists the natural, human, and capital resources needed to start a business. •States qualities of good employees. •States differences between unit and mass pro- duction. •Describes the relationship between productivity and profit. •Writes and evaluates a simple business plan. •Identifies types of advertising.	•Defines sole proprietorship, partnership, corporation, stock, human resource, natural resource, capital resource, product, productivity, profit, unit, mass & batch production, market, advertising. •Writes a business plan. •Executes a business plan as a team member. •Assembles and markets a product. •Draws conclusions based on business data.

DOMAIN	OBJECTIVES	SKILLS AND TERMS
The World	•Defines import and export. •Discriminates between domestic and global trade. •Explains why businesses trade resources, goods and services. •Identify the role of money in trade and make currency conversion.	•Defines trade, import, export, supply, demand, currency. •Discriminate between countries and continents. •Draws conclusions from business and geographic data. •Converts foreign currency to dollars.

Table 2 provides an outline of the career exploration/entrepreneurial curriculum for the junior high
level. This curriculum is organized across three domains; the individual, economics, and the global marketplace.

DOMAIN	OBJECTIVES	SKILLS AND TERMS
Personal Economics	•Exhibits interpersonal skills needed in a business environment. •Complete a personal and career interest inventory. •Relate personal and career interests to job opportunities. •Identify career clusters and related educational requirements. •State sources of employment information. •Evaluate themselves on desirable employment characteristics. •Role-play a series of job interviews and evaluate personal performance. •Develop a personal and family budget. •State advantages and disadvantages of forms of savings. •Invest in and monitor a common stock or stock mutual fund. •State the implications of poor credit, use of credit cards, and the role of capacity, collateral and personal values. •Analyze the role of advertising in generic and name-brand products.	•Define career clusters, common stock, mutual fund. •Create a collage to display personal interests and skills. •Construct a notebook on employment information and employment training sources. •Match personal characteristics with those valued by employers. •Complete mock interviews and self-evaluate performance. •Describe the opportunity costs associated with a balanced budget. •Describe the costs, risks, and benefits of various forms of savings. •Describe the costs, risks, and benefits of credit. •Calculate the cost of a loan. •Purchase goods or services based on appropriate shopping principles.
Business Economics	•Identify goods and services frequently purchased •Compete as teams to identify key features of business competition. •Develop a simple business plan for the manufacture of a good. •Calculate the profit margin from the implementation of the business plan. •Develop conclusions on the most efficient approach to the production of a good. •Create supply and demand schedules to determine the "market-clearing price." •Problem solve to help a struggling company improve employee training. •Demonstrate how business expense becomes business income.	•Define private property, competition, price system,sole proprietorships, partnerships, corporation, demand, supply, market price, slogans, CPI, GDP. •Identify funding sources for businesses. •Use supply and demand schedules. •Develop and apply advertising slogans, strategies. •Complete a decision grid to solve a business problem. •Interpret information found in tables, graphs,charts. •Show the relationship between a trained workforce and productivity. •Evaluate the quality of goods and services. •Calculate productivity and profit.

	•State the implications of illegal and unethical business practices.	•List typical business expenses.
Global Economics	•Explain world-wide ties of economic trade. •Use references to discriminate between countries and resources. •Through simulation, make economic decisions regarding food, clothing, and shelter. •Participate in a trade activity to predict imports exports and trade barriers. •Convert dollars to a variety of currencies. •State the relationship between resources and productivity.	•Define interdependence, human, capital, and natural resources, scarcity, economic incentive, absolute and comparative advantage, production,productivity. •State the consequences of trade barriers. •Determine the effects of tariffs and quotas. •Write classified ads for qualified employees.

The Development of Entrepreneurial Skills

While there are a variety of effective vocational training options available to adolescents with disabilities such as vocational high schools, in-school work adjustment programs, and pre-graduation on-the-job placements, these alternatives may be poor matches for a significant number of adolescents with disabilities. Consider the following example. Linda, a sixteen year old student with mild retardation reads on a sixth grade level, calculates on an eighth grade level, and writes on a fifth grade level. Linda lives in a single parent home in a rural town with a population of 1,200 people. The family income is below the poverty line, and there is one car which Linda's mother uses for transportation to her job. Linda's vocational assessment indicates strong interest and ability for food service. Vocational training options include enrollment in the food service program at the regional high school where Linda will spend two or three years preparing institutional-style meals for peers and teachers; on-the-job training at the local diner where Linda will bus tables, serve meals, prepare salads, and make french fries; or entrepreneurial training and an apprenticeship as a baker in the adjacent community where Linda will learn to purchase materials, supply and demand, preparation of goods, interpersonal skills, safety and health regulations, maintenance of business records, and the operation and maintenance of the equipment. Clearly, the entrepreneurial opportunity for Linda provides, potentially, the greatest measure of autonomy and achievement of an economic standard necessary for independent living.

If schools and special educators are to offer entrepreneurial training to adolescents with disabilities, significant attention must be given to the implementation of an entrepreneurial curriculum, collaboration with community entrepreneurs, the infusing of work samples into students' daily work assignments, and training strategies ranging from school-based businesses, shadow experiences, internships, to long-term apprenticeships. The following table provides a summary of the entrepreneurial curriculum suggested for adolescents with disabilities.

DOMAIN	OBJECTIVES	SKILLS AND TERMS
Economics	•Describe the relationship between supply and demand plays and personal choice. •Demonstrate how dollars, goods, and services connect households with businesses. •Demonstrate how business markets assign resources. •Demonstrate how businesses solve	•Define the following terms: scarcity, opportunity costs, incentives, demand, supply, saving, investing, insurance, credit, entrepreneur, stock, bond. •Develop awareness of sources of income, saving and investment strategies. •Develop a plan to finance a business. •Select and invest in a stock, bond, and stock

	economic problems. •Describe how demand affects price. •Describe the consumer's role in market price. •Use the concept of opportunity cost to analyze saving, investing, and personal finance. •List the uses and abuses of credit. •Describe the responsibilities, advantages and disadvantages of the entrepreneurial system. •List the types, advantages and disadvantages of business financing. •Describe the influences on productivity.	mutual fund. •Develop a chart describing the flow of money in a community.
Entrepre-neurial Skills	•Construct a business plan for the establishment of a class-run company. •Summarize the duties for each job within the company. •Implement the business plan: Sell stock, produce a good or service, advertise the product, keep financial records. •Set production and sales goals for the good or service produced. •Check for quality control. •Describe how employees' attitudes and skills help or hinder productivity. •Compute the taxes to be paid. •Show how state and federal rules impact productivity. •Explain the company's profits will be distributed.	•Explore career goals. •Participate in team decision-making. •Communicate orally and in writing. •Use computers for maintenance of records, communication, and computational needs. •Apply problem-solving strategies to resolve business problems. •Develop and implement a marketing plan. •Measure profit or loss. •Complete income tax forms. •Participate in company training sessions. •Work as a team member. •Explore career options and related educational experiences. •Examine the relationship between employees' attitudes and productivity.
Internships and Apprentice-ships	•Explore career clusters of interest. •Complete a shadow experience with a community volunteer/entrepreneur. •Conduct interviews with community entrepreneurs/mentors. •Construct a personal portfolio containing a resumé, work samples, and letters of recommendation. •Complete an application for an internship with a community entrepreneur. •Set work-related goals and benchmarks to be completed during the internship. •Keep a log of the internship experience. •Complete an application for an apprenticeship with a community entrepreneur. •Set work-related goals and benchmarks to be completed during the apprenticeship. •Keep a log of the apprenticeship experience.	•Measure personal skills and set career-training goals. •Explore career options and gather information about a variety of training plans. •Communicate with community entrepreneurs/ volunteers. •Set training goals for internships and apprenticeships. •Obtain feedback and suggestions on work performance in internships and apprenticeships. •Self-evaluate performance in internships and apprenticeships. •Communicate with mentors and teachers about related academic skills.

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The opportunity to develop entrepreneurial skills via internships, apprenticeships, and school-run businesses offers meaningful choices to adolescents with disabilities, but also requires a significant amount of skill and commitment on the part of special educators and school administrators. These educational personnel must:

- understand the context of a rural school and its environment;
- maintain knowledge concerning the state-of-the-art of rural special education;
- understand the differences involved in serving students with disabilities in rural and urban environments;
- maintain knowledge of effective service delivery models for rural students with disabilities;
- maintain awareness of alternate resources to provide services to rural students with disabilities and skills to identify alternate resources;
- exhibit skills in working with citizens and agencies in rural communities to facilitate cooperation between schools and these agencies serving students with disabilities;
- understand personal development skills for professional growth and the techniques to build a local support system in the rural community;
- maintain skills in working with parents of rural students with disabilities; and
- develop skills in working with peer professionals from rural environments.

Summary

While there are several options such as formal vocational training in technical high schools or community-based job placements for adolescents with disabilities, educators need to consider a broader continuum of vocational training options for these students. When entrepreneurial options such as school-based businesses, internships, and apprenticeships are offered to adolescents, these may serve to remedy many of the educational, personal, and rural issues which can contribute to poor vocational preparation, a loss of autonomy and reduced independence for these students. Formal entrepreneurial programs strengthen the ties between schools and community businesses, maximize use of limited community resources, and in the long run, improve the students' sense of self-efficacy and personal control in their lives.

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